PC-IMPORT

A FILE TRANSFER and BASIC LANGUAGE DIALECT TRANSLATOR

BY MINNY ELECTRONICS

INTRODUCTION

We at MINNY Electronics are glad to see that you have purchased our product and hope that it proves to be a useful tool for your program developement. As with any tool this program was developed to save the programmer hours of work tranlating programs written for the IBM - PC to SUPERBASIC. You will find some programs will translate without any manual intervention, while others require some work and some experience with the two "BASICS" involved. There exists in the realm of the IBM-PC at least two different dialects of BASIC. We have tried to provide a program that takes these differences into account. Certain keywords and functions simply do not tranlate because of hardware considerations or because SUPERBASIC can't support certain data types. I think that for the most part 90% or more will be done by PC_IMPORT thereby making your job easier. Wherever possible have included known differences and alternatives to be taken to provide to the desired solution.

---SETUP---

1. With a QL RS-232 cable, connect the QL serial port #1 to the serial port (COM1) of the IBM - PC.

2. Insert the system disk in the IBM - PC. (If the PC has a hard disk it is not necessary, as the system is on the hard drive and will "auto execute" on power-up.)

3. Turn the two computers on.

4. At this time the PC has just finished the boot process you've answered the time and date questions, if any were displayed, and the cursor is flashing next to the prompt. The prompt may look like this: "C>". This means your in the "C" drive. "A>" means drive "A" etc.. Make sure you are in the drive and sub-directary that contains the MS-DOS system library command called MODE.

FOR PC WITH NO HARD DISK:
The system disk at this time should be in drive "A". Do a "DIR A:MODE.EXE"command to find the file. If the PC returns "FILE NOT FOUND" it most likely is on the other "DOS" diskette. (sometimes two are supplied). If all else fails ask the person who owns or runs the PC for help.

FOR PC WITH HARD DRIVE:
Do a "DIR MODE.EXE" command. This looks for a file called MODE.EXE on the drive represented by the prompt. If the message comes back "FILE NOT FOUND" the file is most likely in a sub-directory. To find out what subdirectories exist, type "DIR/P <return>". This will provide a "page" of files and/or subdirectories and stop so that you can read them. The subdirectories are marked differently from files in that it has no file extension, but instead you will see a <DIR>. To change to a subdirectory, type "CD\[subdirectory_name]". Most times the subdirectory is called MS-DOS, or SYSLIB, or UTIL. The subdirectories are named by the PC operator so it could be anything. Sometimes it's just easier asking the operator where to find the file. If the operator is not available continue to use the "DIR MODE.EXE" on each subdirectory until found.

5. Type "MODE COM1:48,N,8,2,P <return>" this changes the communication port to 4800 baud,no parity,8 bits,2 stop bit,and no time-outs.

6. Type "MODE LPT1:=COM1 <return>" this reassigns the printer output to COM1 communication port. The PC is now ready for file transfers.

---OPERATION---

FOR TRANSFERING BASIC FILES:

1. In the QL type "LRUN MDV2_PCIMPORT <return>"

2. When you see the title page, press any key, as it say's.

3. Select no. 1 for file transfer.

4. You will be prompted to type in the drive no. and your choice of filename for the file to be transfered. EXAMPLE: 2_RESUME (Do not press the "RETURN" KEY).

5. At this time the QL is waiting for the PC to start transfering data. If it has to wait too long it may time-out so don't hit the return on the QL until about 30 seconds prior to starting the PC side of the transfer.

6. If you haven't aready done so, start up the PC and get it set up (see set up section)

7. Type "BASICA<return>" this will cause basic to be loaded in the PC. If you experience an error, ask the PC owner/operator for assistance getting into "BASIC".

8. Once BASIC is loaded. Type 'LOAD "A:filename"<return>'. This will load the BASIC file, in this case, "filename" from the A drive of the PC.

9. On the QL press the RETURN key. On the PC type 'SAVE"A:filename",a'. This will save the program in ASCII format. The programis now ready to be transfered like any other ASCII file. (SEE NEXT SECTION)

FOR TRANSFERING ASCII FILES:

1. On the QL, do steps 1-5 above. (If you haven't already done so.)

2. On the PC type "COPY A:[filename] LST1". This is assuming your file, "filename" (any ASCII file), is on drive "A". EXAMPLE: If it's in "C" drive, type "COPY C:LETTER.BIG LST1". This copies the file "LETTER.BIG" to list device "LST1". Don't press return yet.

---SUPERBASIC VS. BASICA---

In the following section are those IBM-PC advanced BASIC (BASICA) keywords that do not translate directly or at all, a list of possible alternatives have been supplied, as follows:

BASICA	SUPERBASIC	RESULT
BLOAD	LBYTES	File specification must be made compatable with SUPERBASIC. see manuals
BSAVE	SBYTES	SAME
CALL	CALL	Parameters are different see manuals
CHAIN		Although there is no direct equiv. a MERGE command may work,depending on the situation. Another solution may be LRUN with reference back in the other program.
CLOSE	CLOSE	File specification must be made compatable with SUPERBASIC.
COMMON		Can be simulated by saving program variables separately this way they are made "common" to all programs.
CSRLIN		Can be achieved by peeking system variables of QL. see tech manual
DEF FN	DEFine FuNction	Modify to accomodate QL syntax.
DEFINT DEFSNG DEFDBL DEFSTR	variable%	SUPERBASIC does not provide a means to define variables before-hand.
DEFSEG DEFUSR		Used in assembly language routines any basic programs that use IBM-PC assembly lang. are incompatable with the QL assembly language.

---SUPERBASIC VS. BASICA---

BASICA	SUPERBASIC	RESULT
END		No direct equivalent.
ERASE		No direct equivalent.
ERR ERL ERROR		SUPERBASIC does not have error handling that allows for vectoring on error.
FIELD		No direct equivalent.
GET	GET (requires QL-Toolkit tm)	
INPUT#		No direct equivalent.
KEY KEY LIST KEY OFF KEY ON		No direct equivalent.
KILL	DELETE	File deletion commands.
LINE INPUT LINE INPUT#		No direct equivalent.
LLIST LPRINT	LIST #N PRINT #N	Channel N is the chan. open to the printer (ser. port 1 or 2)
LSET RSET		No direct equivalent.
NAME	COPY	Copy old to new then delete old.
ON ERROR GOTO		No direct equivalent.
OPEN	OPEN	Parameters are vastly different see manuals
LOF		No direct equivalent.
VARPTR	FPOS #N (function provided by QL Toolkit)	
OUT	PRINT #N,I%	Outputs to open channel #N, integer I
PEN ON PEN OFF		No direct equivalent.

---SUPERBASIC VS. BASICA---

BASICA	SUPERBASIC	RESULT
PLAY	BEEP	Parameters are vastly different see manuals
PRINT USING		No direct equivalent.
PRINT#	PRINT #N	Prints to open file #N
PRINT# USING		No direct equivalent.
PUT	PUT (QL-TOOLKIT)	See manuals for differences.
RESUME		No direct equivalent.
SOUND	BEEP	See manuals for differences.
SWAP		Exchanges values of two variables Can be simulated in a procedure statement.
TRON		Turns on trace capability
TROFF		Turns off trace capability
WAIT		No direct equivalent.
WHILE	REPeat NAME IF VAR. =0 THEN EXIT NAME	
WEND	END REPeat NAME	
WRITE		Very simular to PRINT, outputs to screen only.

---HELPFUL HINTS---

The IBM-PC has several different "BASIC" interpreters available for it. There is the standard IBM BASIC which is resident to the PC on "ROM". There is another basic interpreter called BASICA distributed by MICRO-SOFT. My experience has been that even these two basics are not totally compatable. In order to write this program a certain middle ground had to set in order be able to translate as many programs as possible without distroying the original intent of the author by incorrect translation. So, if a function or statement can be misinterpreted (depending on interpreter used) it was left in a untouched state by the translater.

Old Indian trick #1:

One of the most helpful things one can do to determine which interpreter the program was written for is to simply load and run the program while still in the IBM-PC to assure yourself that the program runs on the interpreter you have. If so you know that the manual you have for that interpreter will help you translate these statements to SUPERBASIC. If not it's still possible to debug the program on the IBM-PC to make the program compatable with your interpreter before transfering the file to the QL. (Three less handfuls of hair to pull out if you know runs before you transfer it.)

O.I.T #2:

Some BASIC's allow for the use of line no. "0". SUPERBASIC does not like that, so, while still in the IBM-PC and in BASIC. Type "RENUM" this will renumber all the lines starting at "10". SUPERBASIC will like you for it.

O.I.T. #3:

Once youv'e transfered and translated a program it can be loaded and an attempt be made at running it. If it runs, congratulations, one more way to make life easier. If it doesn't the first thing to do is list it. SUPERBASIC will place "MISTake" markers in front of the lines it doesn't understand. This is a tremendous help in debugging the program. Manually interpret the line using your knowledge of SUPERBASIC to find the error. Make the corrections required throughout the program, as you do remove the "MISTake" markers from each line. Now before trying to run the program, SAVE IT UNDER A NEW NAME (this prevents the error message "FILE ALREADY EXISTS"). Now run the program again. If there are errors, SUPERBASIC will tell you. Note the line numbers. Now load the file you just saved, as SUPERBASIC loads the file it will mark any "MISTake"'s it didn't find

---HELPFUL HINTS (CONT.)---

the first time. Make the corrections as indicated either by error during a "RUN" or by "MISTake" markers and "SAVE" under another new filename. If you continue this cycle of editing your program will do one of two things, either it will run or it will show you a spot that needs a modification to simulate the BASICA function in SUPERBASIC. Once the function is simulated test it by running the program. Eventually the program will run and you will have a program that will have taken less effort than starting from scratch. Have fun.